

## APPENDIX C

### SCOPE OF WORK

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### Location and Identification Surveys

#### Delaware Routes 4, 7, and 273

#### Nature of the Project and Expected Impacts

The Delaware Division of Highways is preparing to begin construction of three projects in New Castle County in the Newark-Christiana area. These projects are described below:

1. Delaware Route 7 Relocation, I-95 to Stanton: The attached plan, labelled #1, indicates the location of the proposed relocation of Route 7 from I-95 to Stanton. The project begins at the Delaware Route 7 interchange and ends at the intersection of Delaware Routes 4 and 7. The length of the project is approximately 1.8 miles. West of the Penn Central Railroad, the project traverses both developed and undeveloped land. Both ends of this section are developed, while the middle is undeveloped. East of the Railroad, the project traverses a flood plain prior to passing through a residential and commercial area at the end of the project. Most of this project involves new right-of-way.

2. Delaware Route 273--Christiana Bypass: The attached plan, labelled #2, indicates the location of the proposed Christiana Bypass. The project begins at the intersection of Route 273 and Chapman Road and ends on Route 273, several hundred feet east of the intersection of Routes 273 and 7. The length of the project is approximately 1.67 miles. The western half of the project traverses land presently utilized for agricultural purposes, while the eastern half of the project traverses both woodland and agricultural fields. Most of this project involves new right-of-way.

3. Delaware Route 4 Reconstruction, Elkton Road to Route 7: The attached plan, labelled #3, indicates the location of the proposed reconstruction of Route 4 from Elkton Road to Route 7. The project begins on Delaware Route 2 (Elkton Road) approximately 3900 feet north of the Elkton Road and Ott's Chapel Road intersection. The proposed highway crosses approximately 1.5 miles of undeveloped land before intersecting Delaware Route 896. This section involves new right-of-way. The project then traverses agricultural land before intersecting Delaware Route 72. Between Delaware Route 72 and Harmony Road, the project passes through a suburban area south of the City of Newark. From Harmony Road to the end of the project at Route 7, approximately 1600 feet south of the present intersection of Routes 4 and 7, the land which the project traverses is generally agricultural. The total length of the project is 8.5 miles, most of which involves the widening of the existing right-of-way.

#### Geographic Setting

These three projects are in an area dominated by the Sassafras-Fallsington-Matapeake soil association, described (Soil Conservation Service 1970:5) as:

Level to gently rolling, well-drained and poorly drained moderately coarse textured and medium textured soils on uplands.

The native vegetation in the well-drained areas is mixed hardwoods, particularly oaks. In the poorly-drained areas, the native vegetation is mixed wetland hardwoods. Physiographically, the area is transitional between the Coastal Plain and the Piedmont. The primary drainages are Christina and White Clay Creeks, both major branches of the Christina River. The paleo-geography and paleo-ecology of the area has not been studied.

#### Prehistoric and Historic Background

Very little is known about the prehistory of the area in which these three projects are located. One major site, the Clyde Farm Site, located just south of Stanton, outside the project area, has produced material ranging in age from the Early Archaic through the early historic period. Much of this material is available for study at the Island Field Museum. This site has been placed on the National Register of Historic Places. Paleo-Indian material has been found just outside the project area, and a major flint source is located nearby. Because this area is transitional to the Piedmont, the subsistence-settlement models developed for other areas of Delaware (Thomas, Griffith, Wise and Artusy 1975) may not apply. It is hoped that data from this survey will contribute to our understanding of this aspect of the prehistoric settlement of the area.

The historic occupation of the project area has also not been well studied. Dutch settlement is known to have occurred as far inland as the Clyde Farm Site. Both ironmaking and milling were taking place along Christina Creek and White Clay Creek early in the eighteenth century. Agricultural activities have been important throughout the eighteenth and nineteenth centuries. It is not known whether settlement in this area was subject to the same shift in settlement pattern which has been documented for the second quarter of the eighteenth century on drainages south of New Castle (Wise 1978).

#### Specifications for Proposals

The work required includes an intensive survey and the rights-of-way for all three projects, and the test excavation of two known historic sites, the Robert Ferguson Site and the Thomas Ogle Site, in the Route 4 Reconstruction project area. Architectural recording of the Robert Ferguson House to the standards of the Historic American Building Survey is also required, but this part of the work may be subcontracted. Consultants' proposals should include separate cost estimates for each project right-of-way, the two known historic sites, and the architectural recording, as well as an overall price.

The areas to be intensively surveyed include open areas, woods, flood plain, and developed areas. The consultant must explicitly outline and defend the appropriateness of the field techniques proposed in each situation. Excavation on the flood plain should include some form of subsurface

testing to investigate the possibility of stratified cultural and paleo-ecological data.

Along the Delaware Route 7 Relocation right-of-way, the most intensive survey should be conducted between Stanton Road and where the new alignment rejoins the existing right-of-way, an area which is considered of high prehistoric archaeological potential. There is a possibility that stratified deposits may be encountered in the White Clay Creek flood plain, particularly near its confluence with Mill Creek. Deep testing should be conducted in this area, and the consultant should address in his conclusions the Holocene history of the White Clay Valley. Six inventoried structures and sites are located in the project areas. These properties are described below:

N-1607 - Dickey Estate, a mid-nineteenth-century stucco-over-brick farm house which has been completely remodelled and which is not eligible for the National Register of Historic Places; this property will not be affected by the proposed right-of-way.

N-1602 - Walker House, a good example of a Federal-style residence built about 1825, with ashlarized stucco on the exterior; eligibility for the National Register of Historic Places has not been determined, but the proposed right-of-way will not involve the structure.

N-246 - Hale-Byrnes House, a state-owned structure listed in the National Register of Historic Places; the proposed right-of-way will route traffic away from this structure.

N-3749 (7 NC-E-8) - A series of small sites, probably covering a long time period; collections made by early amateur archaeologists are in the collections of the Island Field Museum.

N-3750 (7 NC-E-20) - Includes Archaic and Woodland components.

N-3723 (7 NC-E-6) - The Clyde Farm Site, an extensive multi-component site which has been placed on the National Register of Historic Places; collection available at the Island Field Museum.

The survey for the Route 273--Christiana Bypass project involves both general surface reconnaissance and woods testing. Deep testing should also be conducted in and near the Christina Creek flood plain. This project will route traffic around the Christiana Historic District but will have no effect on any structural sites. There are three archaeological sites located in the project area, but no information regarding temporal periods represented is available. These sites are N-3748 (7 NC-E-27), N-3751 (7 NC-E-9), and N-3752 (7 NC-E-32). A Revolutionary War encampment may also have been located near the right-of-way west of Old Baltimore Pike.

The most sensitive areas of the Delaware Route 4 Reconstruction right-of-way are the extreme eastern and western ends, where new right-of-way is involved. Stratified deposits may be found where the right-of-way crosses the Christina Creek flood plain. Only two known prehistoric sites are

located along the right-of-way, but no information is available regarding these sites. They are N-3717 (7 NC-D-45) and N-3738 (7 NC-D-53).

Intensive testing is required for the Robert Ferguson Site (N-3902), which is located in the Route 4 Reconstruction project area. This site has been determined eligible for the National Register of Historic Places and will be adversely affected by this project. It is expected that this site will yield data useful in studying patterns of artifact usage on sites occupied by small landowners during the late-eighteenth and nineteenth centuries. The testing program for this property should determine the boundaries of the site and the nature and distribution of the archaeological remains. As a result of this testing program, the consultant will be expected to develop a data recovery program and prepare an estimate of cost. The data recovery program may be bid separately at a later date or added to the survey contract.

The testing program for the Thomas Ogle Site should be essentially the same as that for the Robert Ferguson Site, except that there is no standing structure, the Thomas Ogle House having been demolished in the 1950's when the present intersection was upgraded. This site was occupied by about 1740 and is expected to yield data regarding patterns of artifact usage in rural middle class eighteenth- and nineteenth-century sites. The work will also involve the excavation of an historic period burial for movement to another cemetery. The Division of Highways will be responsible for obtaining the necessary legal permissions for this move. The consultant should also investigate the possibility that the one known grave is part of a small cemetery. As a result of the testing program, the consultant will be required to make recommendations regarding the National Register eligibility of this property and to prepare a nomination, should the findings be positive.

The testing programs for these two sites should follow procedures described by South and Widmer (1977:119-150) or Lewis (1976 and 1977:151-201). Data should be presented in a form which is adaptable to synagraphic computer mapping, although the consultant is not required to produce such a map. An alternative program which produces comparable data may be proposed, but must be defended by the consultant. Close coordination of the testing program with the archaeological staff of the Bureau of Archaeology and Historic Preservation is expected.

#### Report Specifications

1. The report should follow the format suggested by the Heritage Conservation & Recreation Service in "Guidelines for the Location and Identification of Historic Properties Containing Scientific, Prehistoric, Historical, or Archaeological Data" (36 CFR Part 64 DRAFT).

2. Information on all sites or activity areas within the surveyed areas must be summarized in the report and assessed for their significance to National, State, and Local prehistory using the National Register criteria (36 CFR 800.10 and 800.40)

3. The contractor must prepare documentation for Determinations of Eligibility to the National Register of Historic Places for each site or area determined to be significant. This will be appended to the final report.

4. The report must include an evaluation of project impact on all sites within the survey area. The contractor must list effects for each site, according to Procedures for the Protection of Historical and Cultural properties (36 CFR 800.4).

5. Location maps on all survey tracts showing the nature and extent of fieldwork and documenting existing conditions should be included in the report, as well as USGS maps showing the general location of all sites in the survey area.

6. The final section of the report should include conclusions and recommendations for further work. This should address any need for mitigation of adverse effects, along with cost estimates.

#### Contractor Qualifications

The principal investigator(s) shall, at a minimum, have a master's degree in anthropology, history, or closely-related fields. Experience with historic sites archaeology is required. Certification by the Society of Professional Archaeologists is also acceptable. Additional field personnel should be experienced in survey and excavation techniques and in the recognition of cultural materials from both prehistoric and historic periods. The proposal must include a resume for the principal investigator and other supervisory personnel.

#### Review Procedures, Final Disposition of Data, and Other Considerations

1. The Division of Highways will assist the contractor in obtaining trespass permission for private property.

2. The principal investigator shall be present on the project for at least thirty percent of the survey period.

3. The principal investigator shall arrange for periodic field review by the staff of the Bureau of Archaeology and Historic Preservation.

4. Preliminary reports shall be submitted at the end of each phase of fieldwork to the State Historic Preservation Officer. The staff of the Bureau of Archaeology and Historic Preservation will comment as necessary, but work on the next phase may proceed as soon as the preliminary report is submitted.

5. A draft report shall be submitted to the State Historic Preservation Officer for review and comment. The draft will be returned to the consultant within fifteen days of receipt with the comments of the SHPO and the staff of the Bureau of Archaeology and Historic Preservation.

6. The State Historic Preservation Officer shall be provided with one unbound copy and one bound copy of the final report.

7. Copies of field notes, photographs, and drawings shall be presented to the Division of Historical and Cultural Affairs.

8. Artifacts shall be deposited with the Division of Historical and Cultural Affairs.

#### REFERENCES CITED

- Thomas, R. A., and D. R. Griffith, C. L. Wise, R. E. Artusy, Jr.  
1975 "Environmental Adaptation of Delaware's Coastal Plain." In Archaeology of North America, Vol. 3, No. 1.
- South, S. and R. Widmer  
1977 "A Subsurface Sampling Strategy for Archeological Reconnaissance." In Research Strategies in Historical Archeology. Academic Press.
- Lewis, Kenneth  
1976 Camden: a Frontier Town in Eighteenth Century South Carolina. Institute of Archeology and Anthropology, University of South Carolina. Anthropological Studies 2.  
1977 "Sampling the Archeological Frontier: Regional Models and Component Analysis." In Research Strategies in Historical Archeology. Academic Press.